



**State of Nevada**  
**Department of Information Technology**

**Technology Investment Request (TIR)**  
**Instruction Guide**

*Produced by*  
*Department of Information Technology*  
*Planning and Research Unit*

*November 2001*  
*Version 1.0*

S  
M  
A  
L  
L

## TABLE OF CONTENTS

<b>INTRODUCTION.....</b>	<b>1</b>
<b>INSTRUCTIONS .....</b>	<b>2</b>
<b>A COVER PAGE.....</b>	<b>2</b>
A.1 Project Title .....	2
A.2 Submittal Date.....	2
A.3 Department Name.....	2
A.4 Subgroup Name .....	2
A.5 Project Summary.....	2
A.6 Contacts .....	2
A.7 Approvals .....	2
<b>B FUNCTIONAL &amp; SYSTEM REQUIREMENTS .....</b>	<b>3</b>
<b>C COST.....</b>	<b>3</b>
C.1 Project Cost.....	3
C.2 Ongoing Costs.....	6
C.3 Total Cost of Ownership.....	8
C.4 Funding Sources .....	8
<b>APPENDIX 1 – FUNCTIONAL &amp; SYSTEM REQUIREMENTS WORKSHEET .....</b>	<b>9</b>

## INTRODUCTION

### Is This the Right Form For You?

This Instruction Guide provides the information necessary to complete the Technology Investment Request (TIR) - Small document. It should be used in conjunction with the TIR Small template.doc and the TIR Small worksheet.xls.

Use this document to justify all Information Technology (IT) projects where the **total cost of ownership** will be less than **\$ 50,000**. Total cost of ownership is defined as the cost over two years including study, development, implementation and ongoing costs. These are detailed in the Cost section of this TIR. Types of IT projects include:

- Acquisition of vendor software
- Software development projects
- Major enhancements to existing systems

All projects require a functional and system requirements definition. If you are using the TIR Small to acquire and implement vendor software or for other IT projects that do not involve developing a custom software application, the Functional & Systems Requirements worksheet in Appendix 1 of the TIR Small template is sufficient.

If you are using the TIR Small to justify a software development project or major enhancements to an existing system, attach a copy of your detailed requirements documentation to Appendix 1. You must develop detailed requirements prior to moving into the development and implementation phases of the project. If these have not yet been done, also submit a Technology Study Request (TSR) for the detailed requirements and make note of that request in Appendix 1.

If you anticipate that the project will include the study phase *and* the development and implementation phase within the biennium, you should complete both a TSR and a TIR Small to give a complete picture of your project and to serve as a budget placeholder. Projects in the study phase are those where you are either:

- Requesting funding to conduct a functional and system requirements study (using the Technology Study Request form); or
- A functional and systems requirement project is already in process; or
- Requesting a different type of study that may result in a new IT project.

If you do submit a TIR Small as a budget placeholder, you will need to submit an updated TIR upon completion of the functional and system requirements study, reflecting the updated costs.

If you have any questions or need assistance in completing this Technology Investment Request (TIR) - Small document, please contact the DoIT Planning Unit at (775) 684-5800.

## **INSTRUCTIONS**

### **A Cover Page**

#### **A.1 Project Title**

Include the name of the project.

#### **A.2 Submittal Date**

Provide the date on which this TIR Small is being submitted.

#### **A.3 Department Name**

Provide the name of the department that is submitting the request.

#### **A.4 Subgroup Name**

Provide the name of the subgroup, if any (Agency / Section / Bureau / Unit / etc.)

#### **A.5 Project Summary**

Provide a brief, high-level summary that outlines the expected outcome(s) of this request.

#### **A.6 Contacts**

Identify the people DoIT can contact for clarification or additional information when reviewing this request,

#### **A.7 Approvals**

The agency administrator's approval is required.

## B Functional & System Requirements

Briefly describe the functional and system requirements for the new system. Include a Functional & System Requirements Worksheet using the template in Appendix 1, or an equivalent.

## C Cost

Document any known or anticipated costs for this project. Costs are grouped into two types, Project Costs and Ongoing Costs.

Project costs can include studies, development, acquisition, customization, and/or major enhancements to existing systems.

Ongoing costs are those required to support the system once it has been implemented and is operational.

The first table in each detail section is used to define the number of staff required to support the project. The second table is used to define the costs. The final table, Funding Sources, summarizes the total cost to implement and operate the new technology and where the funding will come from. Additional cost details and supporting documentation may be provided in an Appendix.

### C.1 Project Cost

Table 1 – Project FTE

Category	Description
<b>Base Agency Staff (FY 02-03)</b>	Define the <b>number</b> of existing (FY02-03 Base) FTEs that will be working on the project. Partial FTEs can be shown for people who are devoted to the project part time.
<b>New Agency Staff</b>	Identify the <b>number</b> of new permanent staff as FTEs that will work on the project. Partial FTEs can be shown for part time employees.

Table 2 – Project Cost

Category	Description
<b>Base Agency Staff (FY 02 – 03)</b>	Identify the <b>cost</b> of existing staff that will be required during the project.
<b>New Agency Staff</b>	Identify the <b>cost</b> of new staff that will be required during the project.

Category	Description
<b>Application Software License</b>	The license fee for the software for the application system. Typically acquired either from a vendor as Commercial Off the Shelf (COTS), a transfer system or other licensing arrangement. This line item includes acquisition or 1 <sup>st</sup> year licensing fees, depending upon the arrangement.
<b>Customization Charges</b>	Frequently, Commercial Off the Shelf (COTS) and transfer systems require some modification to accommodate an agency's unique requirements. This customization is typically done by the vendor and is negotiated as a part of the purchase price. It is usually priced as fixed cost for each deliverable.
<b>Legacy Data Conversion &amp; Integration</b>	Systems often require data to be moved from one or more legacy systems into the new application database. This may involve costs from the software vendor as well as State technical personnel.
<b>Hardware</b>	Desktop, servers, web, imaging and other supporting equipment. This may also include development environment hardware, if required.
<b>Communications Eqpt. &amp; Line Charges</b>	This includes incremental Local Area Network (LAN) or Wide Area Network (WAN) equipment needed to support the project. Also WAN line charges if this is a 1 <sup>st</sup> time connection and WAN usage is dedicated to this system.
<b>Other Software Licensing</b>	COTS systems frequently integrate software from other vendors, such as database software, report writers, accounting packages etc. In addition, the new system may require additional server software licensing. Software licensing is a rapidly changing area and requires an up-to-date assessment.
<b>DoIT Technical Assistance</b>	Identify technical services/assistance required from DoIT during the project. Consider: <ul style="list-style-type: none"> <li>▪ PC Tech Support</li> <li>▪ Web Support</li> <li>▪ Database Support</li> <li>▪ Programming Support</li> <li>▪ Network Engineering</li> </ul>

Category	Description
<b>Contractor Technical Assistance</b>	Identify technical services/assistance required from a contractor during the project. Consider: <ul style="list-style-type: none"> <li>▪ PC Tech Support</li> <li>▪ Web Support</li> <li>▪ Database Support</li> <li>▪ Programming Support</li> <li>▪ Other services determined by agency</li> </ul>
<b>DoIT Facility Hosting</b>	If the new system is to be hosted in DoIT's computer facility during development, identify the cost for this based upon DoIT's current rate schedule.
<b>Training</b>	Training may include end users, system administrators and other technical support people.
<b>Project Management</b>	Small projects should allocate at least 5% of total cost to project management. Large or complex projects should allocate 10% – 20%. Include Technical Project Oversight provided by DoIT.
<b>Quality Assurance</b>	Small projects should allocate at least 5% of total cost to project management. Large or complex projects should allocate about 10%. Include QA provided by DoIT.
<b>Reserve for Contingency</b>	Develop a percentage of the margin of error for your solution estimate. 20% is typical for most projects, but you should determine what is right for your own project. Multiply this factor by the dollar amount of the estimate to generate the contingency factor in dollars
<b>Other</b>	Use this category to describe any costs not already defined.

## C.2 Ongoing Costs

Table 3 - Ongoing FTE

Category	Description
<b>Base Agency Staff (FY 02-03)</b>	Define the <b>number</b> of existing (FY02-03 Base) FTEs that will support the system during ongoing operations. Partial FTEs can be shown for people who are devoted to the project part time.
<b>New Agency Staff</b>	Identify the <b>number</b> of new permanent staff as FTEs that will be required to support the system. Partial FTEs can be shown for part time employees.

Table 4 - Ongoing Costs

Category	Description
<b>Base Agency Staff (FY 02-03)</b>	Identify the <b>cost</b> of any existing staff that will that will support the new technology during ongoing operation.
<b>New Agency Staff</b>	Identify the <b>cost</b> of new staff that will be required to support the new technology during ongoing operation.
<b>Software Licensing, Software and Hardware Maintenance &amp; Upgrades</b>	The initial purchase of a software license may include maintenance and upgrades for some period of time. Identify the cost to maintain current versions of all software and to provide technical support. Identify any additional hardware maintenance and upgrades also.
<b>DoIT Technical Support</b>	Incremental support required from DoIT might include: <ul style="list-style-type: none"> <li>▪ PC Tech Support</li> <li>▪ Web Support</li> <li>▪ Database Support</li> <li>▪ Programming Support</li> <li>▪ Network Engineering</li> </ul>



Category	Description
<b>Contractor Technical Support</b>	Incremental support supplied by a contractor would include: <ul style="list-style-type: none"><li>▪ PC Tech Support</li><li>▪ Web Support</li><li>▪ Database Support</li><li>▪ Programming Support</li><li>▪ Other support determined by agency</li></ul>
<b>DoIT Facility Hosting</b>	If the new system is to be hosted in DoIT's computer facility, identify the cost for this based upon DoIT's current rate schedule.
<b>DoIT WAN Charges</b>	WAN line charges if this is a 1 <sup>st</sup> time connection and WAN usage is dedicated to this system.
<b>Other</b>	Use this category to describe any costs not already defined.

### C.3 Total Cost of Ownership

Table 5 – Total Cost of Ownership

Category	Description
<b>Total Project Cost</b>	This is the summary line from Table 2.
<b>Total Ongoing Cost</b>	This is the summary line from Table 4.
<b>Total Cost of Ownership</b>	This is the total of project and ongoing costs. It represents the total cost of ownership for the project.

### C.4 Funding Sources

Table 6 – Funding Sources

Category	Description
<b>Total Cost of Ownership</b>	This is the total of project and ongoing costs. It represents the total cost of ownership for the project
<b>Available Base Funding</b>	Existing funding within your agency for this project.
<b>Available Federal Funding</b>	If federal funding is available indicate the amount.
<b>Other Funding</b>	If other sources of funding are available indicate the amount. Provide supporting detail of the sources and any restrictions on them in an appendix.
<b>General Fund Required</b>	This figure is calculated by subtracting all funding sources from the Total Funding Required. It is the amount of your funding request.

## APPENDIX 1 – FUNCTIONAL & SYSTEM REQUIREMENTS WORKSHEET

The Functional & System Requirements Worksheet provides a template to record preliminary requirements for new technology projects of less than \$250,000 that do not require custom system development. This worksheet is not sufficient for custom design and development, even if the total cost is less than \$250,000. If a custom system is necessary, a Requirements Definition study and System Design Specification are required.

Use this worksheet to list requirements for:

- Business Functions
- Reporting Capabilities

Sections of the Requirements Worksheet include:

- **Feature Description** – A line is provided for the identification or description of each required feature within the two categories listed above.
- **Comments, Issues** – This column provides an area to make notes about impacts that may result from required process changes, system modifications, or system enhancements.